

of Solar Activity and the Nature of 22-year Changes of the Cosmic Ray Solar Diurnal Variation", which might be of interest in this regard; but unfortunately it was not presented.

Anyway, it appears that much more still to be done, especially as regards the methods of analysing the experimental data without prejudices, before arriving at a clear understanding of these phenomena.

References

- 1) S. P. Baliga and T. Thambyahpillai: Phil. Mag. **4** (1959) 973.
- 2) M. Possener and I. J. Van Heerden, Phil. Mag. **1** (1956) 253.
- 3) D. Venkatensan and A. Dattner, Tellus **11** (1959) 116.
- 4) A. M. Conforto and J. A. Simpson: Nuovo. Cim. **5** (1957) 1052.
- 5) H. Elliot: Phil. Mag. **5** (1960) 601.
- 6) Dorman: *Cosmic Ray Variation*, Moscow (1957).

Discussion

Korff, S. A.: There is a possible source of error in deriving a sidereal effect, for a solar diurnal wave and a yearly wave may in certain circumstances combine to give an apparent sidereal wave. One should therefore be conservative in accepting simple interpretations.

Sarabhai, V. A.: It was pointed out by Conforto and Simpson that towards the end of 1959, interplanetary conditions were such that solar daily variation was down to the noise level. We find by examination of distributions of amplitudes on individual days that the solar variation was active during 1959 and the average value was reduced due to wide scatter of time of maximum. This condition for observing a sidereal anisotropy does not appear to be better at solar minimum, but it would be good to confirm this at the next minimum.

Greisen, K.: It is interesting that the phase of the maximum frequency of small air showers, which recurs persistently in many experiments, is very close to the consistent phase of sidereal maximum in the low-energy cosmic radiation, as summarized by Miss Conforto. The agreement may be accidental, since both types of experiments are subject to solar influences on the atmosphere, both diurnal and seasonal; but it is possible that the agreement is more than coincidental.

JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN Vol. 17, SUPPLEMENT A-III, 1962
INTERNATIONAL CONFERENCE ON COSMIC RAYS AND THE EARTH STORM Part III

III-2-20. Point Source of Cosmic Rays

Y. SEKIDO

Physical Institute, Nagoya University, Nagoya, Japan

This article is a summarizing talk of III-2-15, III-2-16 and III-2-17.

Discussion

Burbidge, E. M.: Since the resolution of the cosmic ray telescope is low, with a beam width of a few degrees, I think it would be very dangerous to try and make identification with an optical source. Particularly, it would be dangerous to try and make identification with some relatively bright optical object such as variable star. Experience with attempts to identify radio sources with optical objects has shown that the radio sources were in general faint optically, and good resolution with radio telescopes was required before any progress could be made, and I would expect the same situation to hold for cosmic ray sources.